

SECRET

Approved For Release 2004/05/05 : CIA-RDP78B05171A000600010036-4

NPIC/TSG/RED/SDB-034-70
9 September 1970

MEMORANDUM FOR THE RECORD

SUBJECT: Dry Silver Film Stability

1. During the month of August, a Wright Patterson AFB in-house report, concerning the image stability of dry process reproduction films, was discussed at a committee meeting at NPIC. A copy of this report is attached to this memorandum for reference.

2. In a telephone discussion with [] the author of the paper, the following information was obtained:

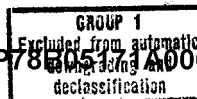
First of all, this test was designed to duplicate an unusual set of environmental circumstances that caused crazing of [] diazo transparencies in a display case at Shaw AFB. A test set-up, duplicating these conditions as closely as possible, was devised at Wright Patterson AFB. A clear 40 Watt Lumiline bulb with a built in chrominum reflector was used as the radiator. This set-up produced a 40 foot-candle reading on center, one foot from the source and a 25 foot-candle reading at the ends of the bulb. A [] foot candle meter was used for these measurements. [] exposed and processed all of the materials used, except for the [] material, which was given to him as a sample.

3. In discussions concerning the area of testing the keeping quality of film images, [] stated that it was unfortunate that his tests have received so much attention and such wide distribution since he felt that the conditions used were not realistic for determining the useful life of any kind of photographic imagery. He stated that he knew of no Military Specifications or Federal Specifications for testing image permanency of reproduction films. He also stated that the tests which have been established with the [] for the accelerated aging of Dry Silver materials appear to be very realistic. [] guessed that the differences in performance were in some part caused by the increased IR from the Lumiline bulb but were more likely due to the greater humidity conditions. At humidities over 90%, a discontinuity occurs. Deterioration of most all materials increase tremendously in this area. [] suggested meeting with various services and agencies to attempt to establish some realistic, practical and meaningful testing standards for image permanency of films. He also stated that he was giving a complete briefing to his superior, [] on this subject.

Declass Review by
NIMA/DOD

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25X1 4. In discussing the Wright Patterson AFB tests with [redacted]
25X1 [redacted] he stated that, even though they are convinced
25X1 that the established acceleration tests for Dry Silver Materials are
valid, they are concerned about the factors indicated in the W/P report
and are setting up a duplicate test to obtain more specific information
on the performance. Additionally, processed imagery is being tested
under roomlight conditions on a [redacted] light table to obtain some
numbers concerning the "useful life" of Dry Silver Materials under what
are considered standard use conditions.

25X1 5. [redacted] C/ATB, has received a copy of the W/P AFB report,
Dry Silver Step wedges and imagery, and heat processed Diazo step wedges
and imagery to conduct some tests in-house on the image permanency of
these films.

[redacted]
Project Monitor
MFIC/TSG/RED/SDB

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